

DOCKET NO.: ISPH-0595 (ISIS.019A)
Appl. No. 09/923,515

PATENT

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 (Currently Amended): A non-cleaving antisense oligonucleotide 12 to 30 nucleobases in length, wherein said oligonucleotide
is targeted and 100% complementary to a sequence within the range of nucleotides 174 to 203 of a nucleic acid molecule encoding human apolipoprotein (a) (SEQ ID NO: 3),
has 100% complementarity to SEQ ID NO: 3, and wherein said oligonucleotide
specifically hybridizes with said nucleic acid molecule encoding human apolipoprotein (a) and
inhibits the expression of human apolipoprotein (a), wherein said oligonucleotide
comprises at least one modification selected from the group consisting of a modified internucleoside linkage, a modified sugar moiety, and a modified nucleobase.
- 2-4 (Canceled)
- 5 (Previously Presented): The oligonucleotide of claim 1 wherein the modified internucleoside linkage is a phosphorothioate linkage.
- 6 (Canceled)
- 7 (Previously Presented): The oligonucleotide of claim 1 wherein the modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.
- 8 (Canceled)
- 9 (Previously Presented): The oligonucleotide of claim 1 wherein the modified nucleobase is a 5-methylcytosine.

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10 (Previously Presented): The oligonucleotide of claim 1 which is a chimeric oligonucleotide.

11 (Canceled)

12 (Previously Presented): A composition comprising the oligonucleotide of claim 1 and a pharmaceutically acceptable carrier or diluent.

13-14 (Canceled)

15 (Currently Amended): A method of inhibiting the expression of human apolipoprotein (a) in cells or tissues comprising contacting cells or tissues *in vitro* with the ~~compound~~ oligonucleotide of claim 1 so that expression of human apolipoprotein (a) is inhibited.

16-40 (Canceled)

41 (Currently amended) An antisense oligonucleotide 12 to 30 nucleobases in length, wherein said oligonucleotide

comprises at least an 8-nucleobase portion of the nucleobase sequence of SEQ ID NO: 7; and

has 100% complementarity to a nucleic acid molecule encoding human apolipoprotein(a) (SEQ ID NO: 3); and

~~inhibits the expression of human apolipoprotein(a).~~

42 (Previously Presented) The antisense oligonucleotide of claim 41, wherein said oligonucleotide is 20 nucleobases in length.

43 (Previously Presented) The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises the nucleobase sequence GGCAGGTCCTTCCTGTGACA (SEQ ID NO: 7).

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- 44 (Previously Presented) The antisense oligonucleotide of claim 41, wherein said oligonucleotide is a chimeric oligonucleotide.
- 45 (Previously Presented) The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises at least one modified internucleoside linkage.
- 46 (Previously Presented) The antisense oligonucleotide of claim 45, wherein the modified internucleoside linkage is a phosphorothioate linkage.
- 47 (Previously Presented) The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises at least one modified sugar moiety.
- 48 (Previously Presented) The antisense oligonucleotide of claim 47, wherein said modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.
- 49 (Previously Presented) The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises at least one modified nucleobase.
- 50 (Previously Presented) The antisense oligonucleotide of claim 49, wherein said modified nucleobase is a 5-methylcytidine.
- 51 (New) The antisense oligonucleotide of claim 41, wherein said antisense oligonucleotide consists of the nucleobase sequence GGCAGGTCCTTCCTGTGACA (SEQ ID NO: 7).
- 52 (New) The antisense oligonucleotide of claim 44, wherein said chimeric oligonucleotide comprises a gap segment of linked 2'-deoxynucleotides which is flanked on each side by at least one 2'-O-methoxyethyl nucleotide.
- 53 (New) The antisense oligonucleotide of claim 52, wherein said gap segment is ten 2'-deoxynucleotides in length.
- 54 (New) A composition comprising the antisense oligonucleotide of claim 41 and a pharmaceutically acceptable carrier or diluent.

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- 55 (New) The antisense oligonucleotide of claim 41, having at least 12 linked nucleobases of SEQ ID NO: 7.
- 56 (New) The oligonucleotide of claim 1, wherein said oligonucleotide is targeted to nucleotides 174 to 193 of SEQ ID NO: 3.
- 57 (New) The oligonucleotide of claim 10, wherein said oligonucleotide comprises a gap segment of linked 2'-deoxynucleotides which is flanked on each side by at least one 2'-O-methoxyethyl nucleotide.
- 58 (New) The oligonucleotide of claim 57, wherein said gap segment is ten 2'-deoxynucleotides in length.